

CLAIMS

1. Device (10) for circulating sealing gas for mechanical dry seals (11) of a centrifugal compressor (13) at times when the machine is stationary and
5 pressurized, characterized in that it comprises a sealed reciprocating compressor (12), the reciprocating compressor (12) including a piston (14) slidable in a cylinder (16), the said piston (14) being moved by a magnetic coupling to an external magnetic element (20)
10 which moves along the said cylinder (16).
2. Gas circulation device (10) according to Claim 1, characterized in that the said external magnetic element (20) is moved by a reciprocating motor (18).
3. Gas circulation device (10) according to Claim 2,
15 characterized in that the said reciprocating motor (18) is of the pneumatic type.
4. Gas circulation device (10) according to Claim 1, characterized in that the said external magnetic element (20) is a ring which is moved outside the said
20 cylinder (16).
5. Gas circulation device (10) according to Claim 1, characterized in that the said cylinder (16) is made from nonmagnetic material.
6. Gas circulation device (10) according to Claim 1,
25 characterized in that the said piston (14) is made from a material sensitive to a magnetic field.
7. Gas circulation device (10) according to Claim 6, characterized in that the said piston (14) is made from a metallic material.

8. Gas circulation device (10) according to Claim 1, characterized in that it has no seals in contact with the exterior.

5 9. Gas circulation device (10) according to Claim 1, characterized in that it comprises a heater (22) through which the gas moved by the said reciprocating compressor (12) passes, the said gas being raised to a sufficient temperature to prevent the formation of condensate and/or ice between the sealing ring and disc
10 of the said mechanical dry seals.

10. Gas circulation device (10) according to Claim 1, characterized in that the said reciprocating compressor (12) is double-acting.

15 11. Gas circulation device (10) according to Claim 1, characterized in that the dimensions of the said reciprocating compressor (12) are small.